

# PHENIX WEEKLY PLANNING

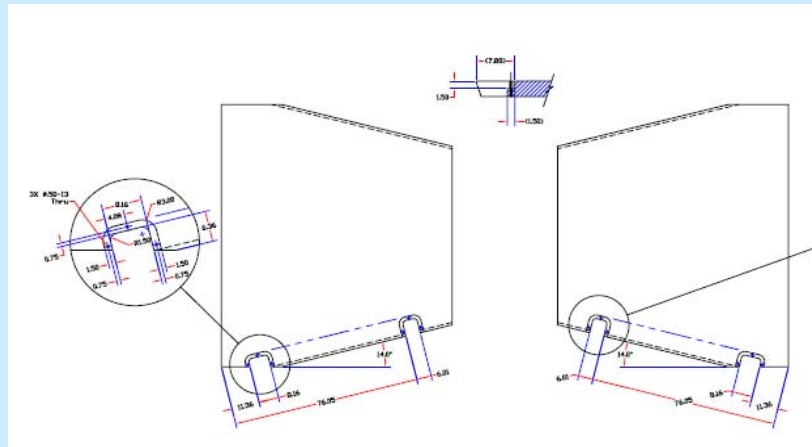


8/9/2012  
Don Lynch

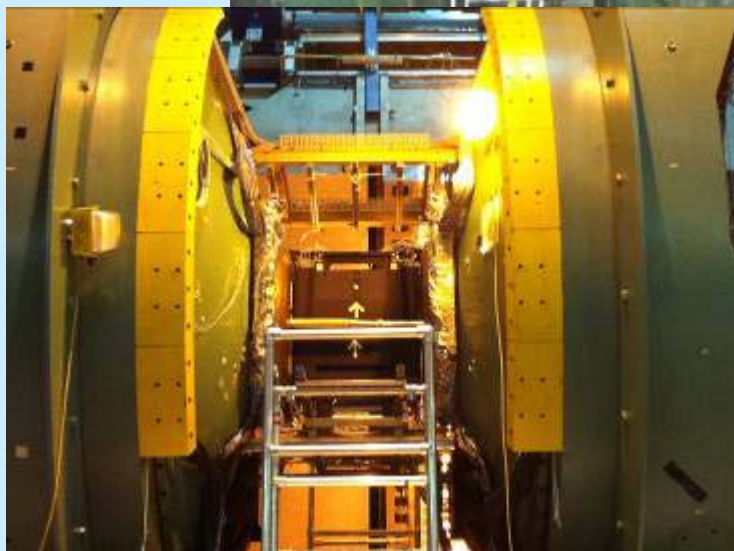
- Disassemble Summer Sunday platforms - Done
- Disconnect Station 1 South cables and services - in progress
- VTX/FVTX Repairs at Chemistry/Physics - in progress
- Prep for MuTr Station 1 South & Stations 2&3 N&S - in progress
- Remove MMN East vertical lampshade
- Prep for DC West
- sPHENIX design support
- MPC-Ex design support



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- sPHENIX design support
- MPC-Ex design support
- **No Planning meeting 8/16**







# RPC Station 1 North and South Cooling Upgrade

TECHNICAL SUPPORT ZONE



North



South

Work Permit Done



Looking towards RPC3 North  
 ← East                      West →



Looking towards RPC3 South  
 ← West                      East →



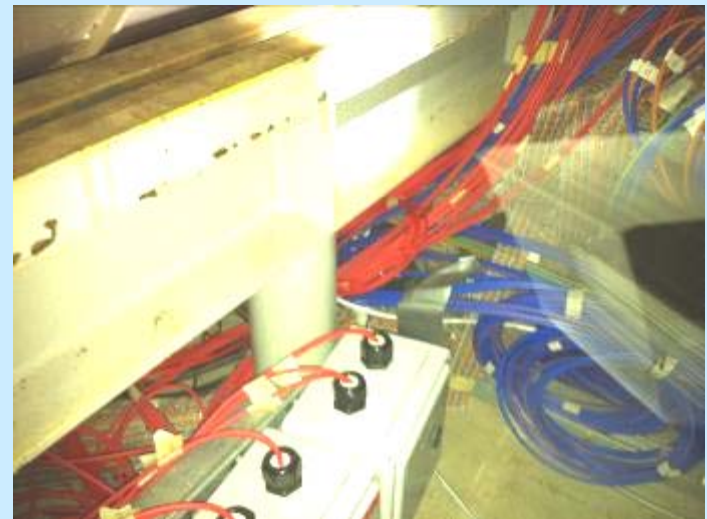
# RPC Background Attenuation Project

TECHNICAL SUPPORT

Under DX at RPC3 North  
 ← East                      West →

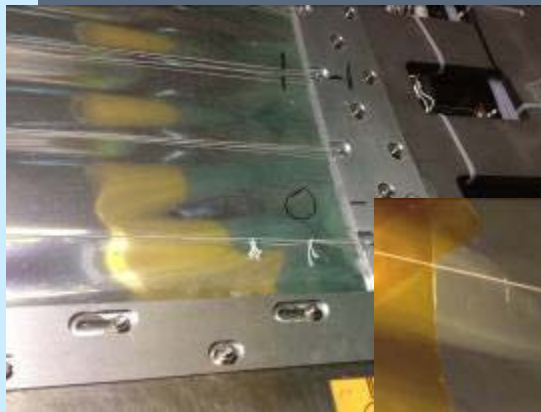
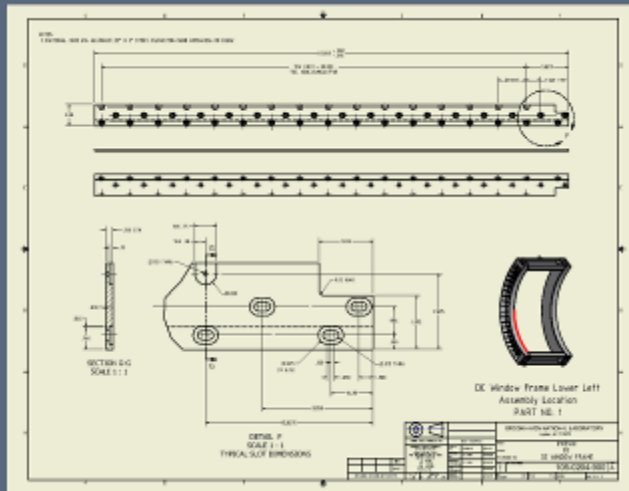


Under DX at RPC3 South  
 ← West                      East →



# DC West Upgrade Design and measurements

TECHNICAL SUPPORT





• Station-1 South re-capacitation and termination



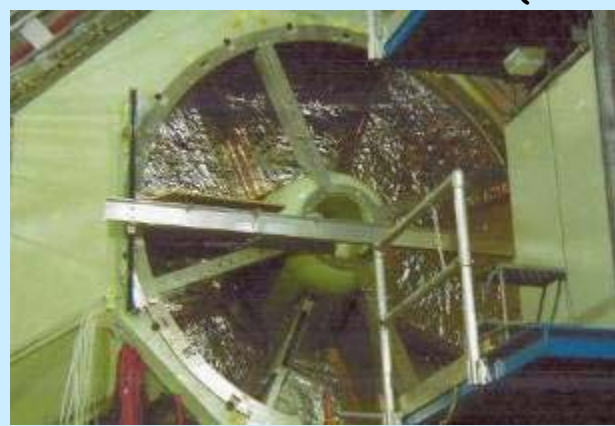
WP Approved



vacuum lifting fixture



view when sta-1 removed (south)



## Clamp-on Terminator Installation on North & South Station-3

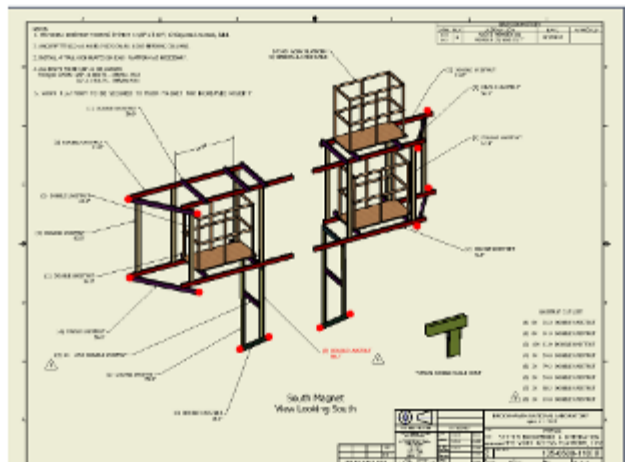
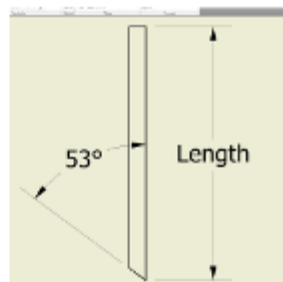
- Lower clamp-on terminators already installed for both north and south sta-3 (bottom 4 octants)
- With new work platforms that reaches all of sta-3; install remaining (upper) clamp-on terminators.

2 WP's Submitted (N & S),  
Approved



### MUON MAGNET SOUTH UNISTRUT CUT LIST

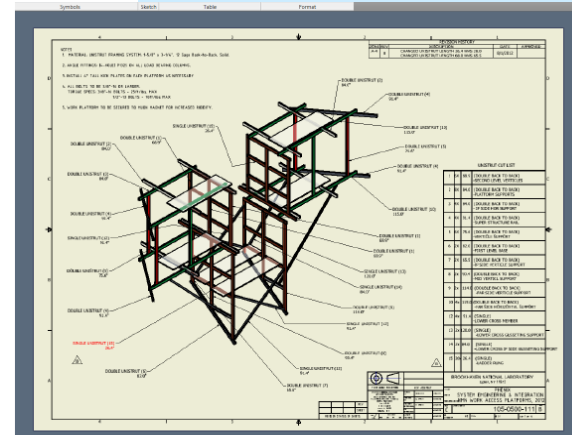
- (1) 8X 36.0 DOUBLE UNISTRUT
- (2) 8X 91.0 DOUBLE UNISTRUT
- (3) 10X 62.0 DOUBLE UNISTRUT
- (4) 4X 56.0 DOUBLE UNISTRUT
- (5) 2X 79.2 DOUBLE UNISTRUT x 53°
- (6) 2X 56.0 DOUBLE UNISTRUT
- (7) 2X 58.2 DOUBLE UNISTRUT x 53°
- (8) 2X 24.8 DOUBLE UNISTRUT



### MMS Work Platforms

### MUON MAGNET NORTH UNISTRUT CUT LIST

- (1) 6X 68.9 (DOUBLE BACK TO BACK)  
-SECOND LEVEL VERTICLES
- (2) 8X 84.0 (DOUBLE BACK TO BACK)  
-PLATFORM SUPPORTS
- (3) 4X 84.0 (DOUBLE BACK TO BACK)  
-IP SIDE HOR SUPPORT
- (4) 4X 91.4 (DOUBLE BACK TO BACK)  
-SUPER STRUCTURE RAIL
- (5) 6X 75.6 (DOUBLE BACK TO BACK)  
-VERTICLE SUPPORT
- (6) 2X 82.0 (DOUBLE BACK TO BACK)  
-FIRST LEVEL BASE
- (7) 2X 68.0 (DOUBLE BACK TO BACK) x 53°  
-IP SIDE VERTICLE SUPPORT
- (8) 2x 90.4 (DOUBLE BACK TO BACK) x 53°  
-MID VERTICLE SUPPORT
- (9) 2x 114.0 (DOUBLE BACK TO BACK) x 53°  
-FAR SIDE VERTICLE SUPPORT
- (10) 4x 115.0 (DOUBLE BACK TO BACK)  
-FAR SIDE HORIZONTAL SUPPORT
- (12) 4x 91.4 (SINGLE)  
-LOWER CROSS MEMBER
- (13) 2x 120.0 (SINGLE)  
-LOWER CROSS GUSSETING SUPPORT
- (14) 2x 84.0 (SINGLE)  
-LOWER CROSS IP SIDE GUSSETING SUPPORT
- (15) 20x 26.4 (SINGLE)  
-LADDER RUNG



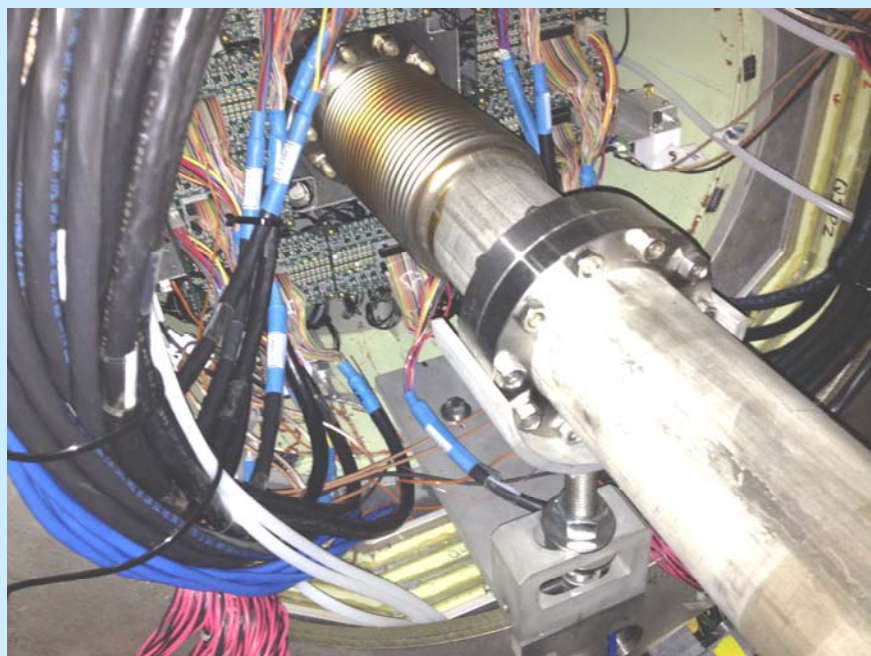
### MMN Work Platforms

Design Approval Done, Bargaining Unit Agreement Approved

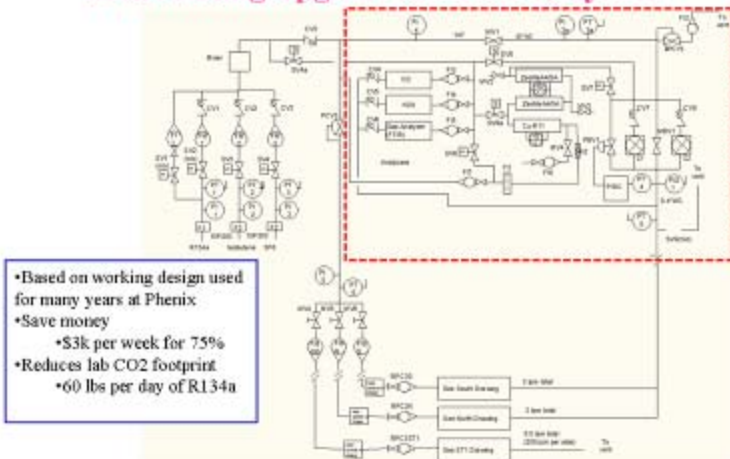


## MPC Repairs -

North MPC Removed for Evaluation



## Run 12 Shutdown Work Overview Gas/Cooling Systems Recirculating Upgrade to RPC Gas System



June 20, 2012

18

## RPC Recirculation Upgrade

## VTX/FVTX Cooling Upgrade





## MuID Collar IR Holding Area Support

Structural support improvements designed

Parts to be ordered

Installation this fall prior to EC roll in



New Electrical Work for 2012 Shutdown, to be accomplished as time is available

1. Add Transient Surge Suppressor to 3 phase power panel on the Central Magnet Bridge.
2. The Gas Mixing House Breaker Panel for the Gas Mixing side is almost out of spare breaker slots and needs to be reviewed for increased capacity panel to replace it.
3. New computer rack replacements/additions for upcoming Run 13 & Rack Room computer infrastructure changes involving power distribution circuit (UPS and normal AC power) re-work - check with Martin Purschke

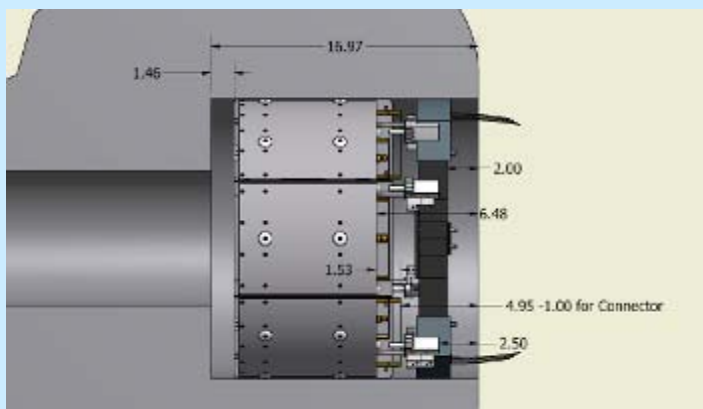
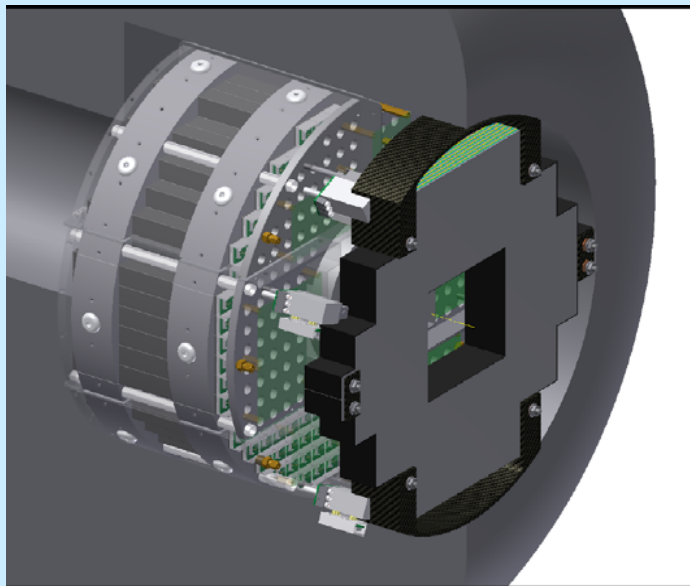
Additional Work for 2012, not yet scheduled, to be fit in as available

1. Replaced aging magnet hoses (CM only)
2. identify obsolete services passing through sill and remove them.
3. Cover for services coming from IR through sill.
4. Plan for stripping out TEC electronics and services to free up TEC racks.
5. Add limit switch and improved spooling control for window washer cable.

## PHENIX Shutdown 2012 Electronics Upgrade /Repair

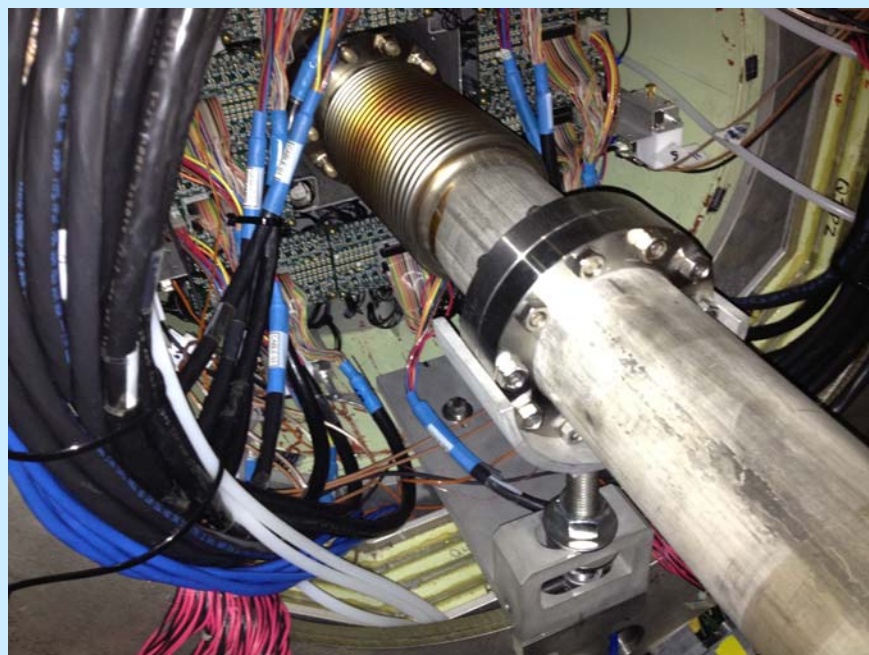
TECHNICAL  
SUPPORT  
2012

- Replace remaining RS-485 type ADAMs on West carriage with MODBUS/TCP type.
- Install Ethernet switches and MODBUS/TCP ADAMs on Central Magnet arm.
- Install second MODBUS server in counting house.
- Install MTP patch bay and jumpers for FVTX in counting house.
- Add several backup MTP fibers from CH to IR



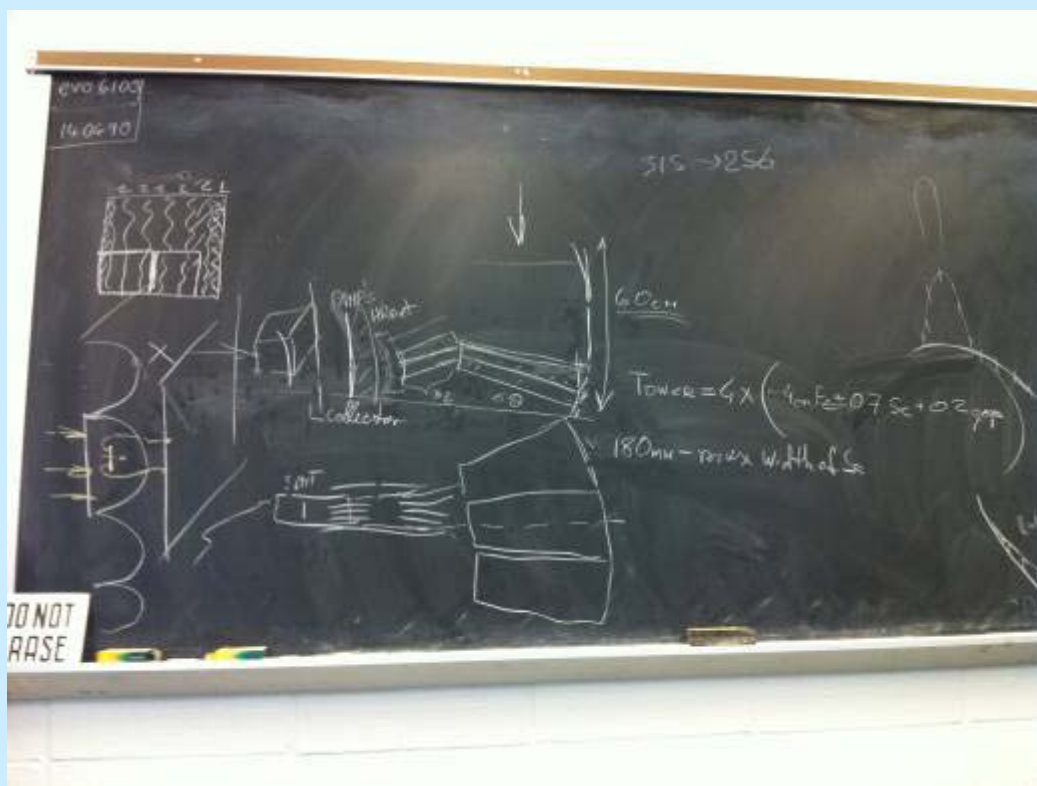
## MPC-Ex Upgrade

*We will be making measurements and test fitting mockups this summer in preparation for design and fabrication next fall, if proposed upgrade is approved*



North MPC 07/25/12





## Requested CAD Support for 2012 Shutdown

TECHNICAL SUPPORT 2012

Carpenter - Assist with Station 1, MMS, MMN and DC West scaffolding and work platforms  
- -7/23-Oct. 26 (2 weeks at beginning, 1 week at end,  $\frac{1}{2}$  days at various intervals between)

Articulated manlift - For removal and re-installation of MPC N - week of 10/16

CAD Mech techs - remove and restore MMS and MMN lampshades - week of 7/23

Survey - VTX/FVTX at Chemistry and PHENIX IR - 10/8-11/9

Riggers - transport VTX/FVTX to IR from Chemistry - week of 10/29

Carpenters and Riggers - erect and disassemble Summer Sunday dance floor - 8/1-8/7

Riggers and Carpenters - restore dumbwaiter and ladder to EC - week of 11/26

Riggers - Assemble shield wall and Install plug door - 12/26-12/28

Blue Sheets and White Sheets - 12/3-12/21

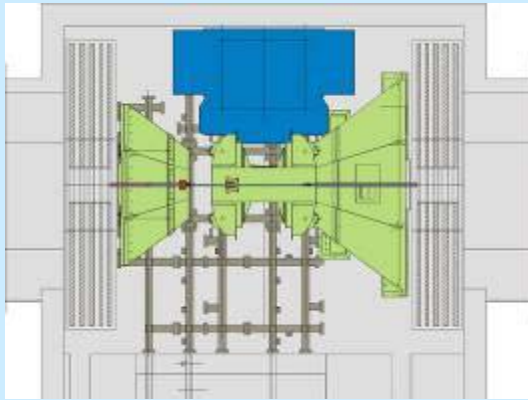
A/C evaluation and repairs, IR and rack room A/C's - complete by start of run 13

## Procedures for Shutdown 2012

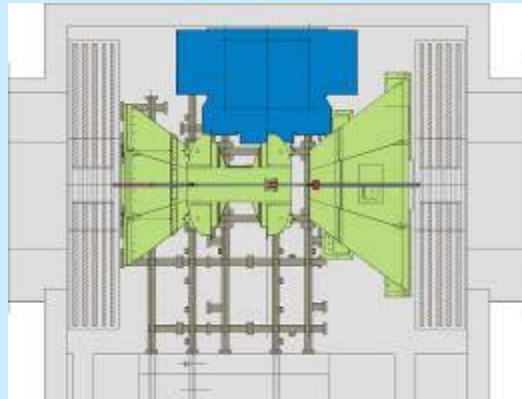
- Existing PHENIX General Purpose Recurring Task procedures - on line
  - VTX Removal - Done
  - FVTX/VTX installation - Done
  - VTX Survey - Done
  - FVTX Survey - Done
  - FVTX Cooling System Upgrades - Done
  - MuTr Maintenance & Upgrade (stations 1 2 & 3) - Done
  - MuTrigger Maintenance and Upgrade - Done
  - DC Repair - Incl. in WP
  - MPC removal and re-installation - incl in WP - Done
- Procedures will be part of 1 WP for VTX and FVTX
- Incl. in separate WP's for MMN and MMS entry

## Work Permits for Shutdown 2012

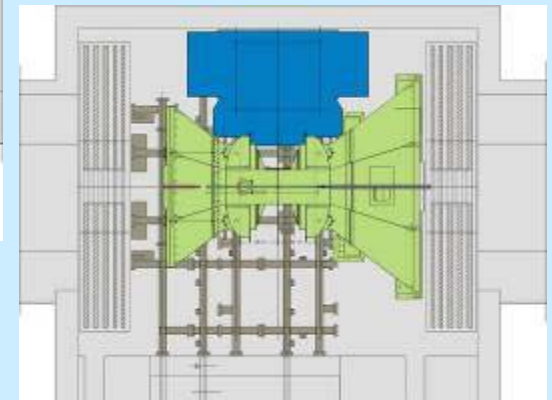
- Start of Shutdown (PHENIX) - Done
- VTX Removal/FVTX/VTX Installation - Approved
- MuTr/MuTrigger Maintenance and Upgrade 3 WP's:  
Station 1, MMN and MMS work - at CAD for Approval
- RPC1 Cooling Upgrade (PHENIX) - Done
- DC West Repairs - in Design
- MPC repairs - Approved
- End of Shutdown (PHENIX)



CM is currently moved north to gain access to station 1 south. Work on RPC1 South, DC West, MPC South and MuTr Station 1 South.



After all work finished move CM south, reinstall MPCN complete RPC1 North work, survey step 1 for beampipe,



Move CM north complete beampipe and CM survey. Move MMS North to run position. VTX/FVTX work may be done in any configuration.



## TECHNICAL SUPPORT 2012

Remove VTX/FVTX and transport to Chemistry Lab	Done
Remove MMS & MMN vertical East lampshades	In Progress
Summer Sunday (8/5) Prep and teardown	Done
Summer Sunday (RHIC)	Done
MuTr South Station 1 work	
Install access (Sta. 1 work platforms)	Done
Disconnect Cables, hoses etc, ID/label all	In Progress
Remove FEE plates and chambers	8/13-8/17/2012
Station 2 Terminators and manifold upgrade through access opened by station 1 removal	8/20/-8/31/2012
MPC South repairs	8/20-9/15/2012
RPC 1 South cooling upgrade	8/20-9/15/2012
Labor Day Holiday	9/3/2012
MuTr South Station 1 work (Cont'd)	
Clean/install new MuTr Sta. 1 chamber parts and upgrades (concurrent At RPC Factory)	8/20/-9/7/2012
Re-install chambers and FEE plates	9/10-9/14/2012
Re-cable, re-hose and test	9/10-9/28/2012
re-capacitation and air manifold upgrades	
Station 3 North and South (upper half)	7/23-9/30/2012

## TECHNICAL SUPPORT ZONE

Repair upgrade, reassemble VTX/FVTX

In Progress

Test, survey (at Chemistry and IR) and re-install VTX/FVTX

10/5-10/31/12

Substation breaker upgrade/test (CAD)

8/20-9/30

DC West maintenance (replace window)

9/15-10/15

RPC stations 1 and 3, north and south maintenance

As required

Other detector maintenance as required

As required

Infrastructure maintenance as required

As required

TBD prototype tasks

As required

Open Station 1 North, re-install MPC North

10/16-10/26/2012

RPC1 North Cooling upgrade (if not completed earlier)

10/16-10/26/2012

Veterans Day Holiday

11/12/2012

Pre-run commissioning and prep for run 13

11/1-12/31/2012

Prep for EC roll in

11/12-11/16/2012

Roll in EC

11/19-11/23/2012

Thanksgiving Holidays

11/22-23/2012

Prep IR for run

11/26-12/3/2010

Pink/Blue/White sheets

12/3-12/21/201

Christmas Holidays

12/24-25/2012

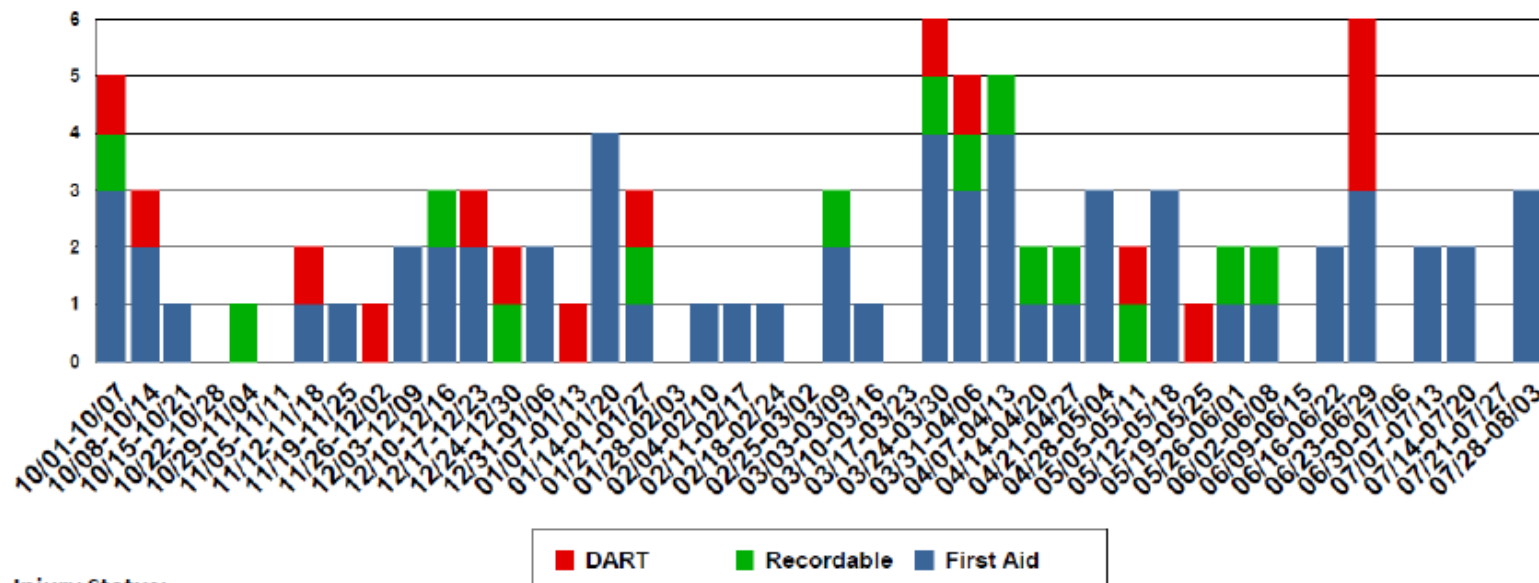
Start run 13

1/1/2013

1. Ladder Safety - All fixed vertical ladders at PHENIX are out of service pending inspections. MMS Eyebrow ladder failed inspections and may not be used until deficiencies are corrected.



**Injuries Per Week (FY)**  
As of 8/3/2012



**Injury Status:**

FY12 YTD: DART – 15, TRC – 29, First Aid – 60

FY11: DART – 27, TRC – 42, First Aid – 45

FY10: DART – 19, TRC – 33, First Aid – 52

FY12 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/Occlnj/BNLInjuries.aspx>

**Recent Injuries**

8/1/12	First Aid	An employee was stung on the eyelid by a flying insect while driving a BNL vehicle. At the OMC, he received first aid and returned to normal duties. He was sent to his personal physician for possible medical treatment. ( <a href="#">Event Link</a> )
7/30/12	First Aid	An employee was assisting in the removal of scaffolding when he was stung by a flying insect. At the OMC, first aid was given and he returned to normal duties. ( <a href="#">Event Link</a> )
7/30/12	First Aid	An employee was re-opening a crate to retrieve equipment that he had packed at an earlier date and experienced throat irritation though there was no odor. At the OMC, he was examined and returned to normal duties. ( <a href="#">Event Link</a> )



Recent Events		
8/3/12	Non-Reportable	Fire/Rescue responded to B510 basement tape storage area for an activated smoke detector. Building evacuated. The area was checked by firefighters and no smoke or fire was found. The panel was reset and the building was reoccupied. No further action was taken. ( <a href="#">Event Link</a> )
8/3/12	Non-Reportable	Minor leak, no adverse environmental affect. ( <a href="#">Event Link</a> )
8/3/12	Non-Reportable	Fire/Rescue responded to fire alarm in B555. Detector activated in Room 204 - unknown cause. System will not reset / Fire Alarm technician called in to troubleshoot. ( <a href="#">Event Link</a> )
8/1/12	Non-Reportable	Fire Group responded to the transfer yard because a BNL vacuum truck was leaking hydraulic fluid. The spill was less than a 1/2 of gallon and was on the soil. Grounds mitigated the spill and environmental responded. No further action was taken. ( <a href="#">Event Link</a> )
8/1/12	Non-Reportable	While moving a liquid nitrogen Dewar on a cart at the B855 loading dock, the Dewar moved slightly when the cart was pulled back to allow movement of the cart out of the worker's way. The 90-degree turn ball valve on the Dewar bumped the cart and caused the valve to crack open. This allowed some gas to flow from the Dewar through the end of the tubing at the cart which was directed downward. The worker was wearing all the proper cryogenics PPE and was not hit with the gas stream. No injury, no environmental impact. Waste Management is addressing this within their own line organization. ( <a href="#">Event Link</a> )
8/1/12	Non-Reportable	Discovered a spill of <quart of oil on north parking lot of B400. Response was routine. ( <a href="#">Event Link</a> )
8/1/12	Non-Reportable	False fire alarm in B510. Fire Rescue personnel responded and searched the area inside the building and found a faulty smoke detector in the facility. The fire alarm group was notified to replace detectors. Fire Rescue cleared the building without incident. ( <a href="#">Event Link</a> )
7/31/12	Non-Reportable	An individual in B901A saw what they thought was smoke and called the BNL Fire Group to investigate. The "smoke" was caused by the discharge from a vacuum pump which was pumping on one of the Tandem accelerator tanks, it had moist air which appeared to be smoke. This is a routine effect every time the tank is pumped down. ( <a href="#">Event Link</a> )

# Where To Find PHENIX Engineering Info

No Planning Meeting Next week:

Quark Matter for PHENIX Scientists



Glacier Bay for me



[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)

